Claims:

1. (Original) A guide wire comprising a core wire having distal, medial and proximal segments, the core wire substantially comprising a non-metallic, non-woven, material.

2. (Original) A guide wire according to claim 1 wherein the core wire distal segment has a diameter which is less than that of the core wire medial and proximal segments.

3. (Original) A guide wire according to claim 1 wherein the diameters of the core wire distal, medial, and proximal segments are all substantially the same.

4. (Previously amended) A guide wire according to claim 1 wherein the core wire has a polymeric coating thereon which covers substantially the entire length of the core wire.

5. (Original) A guide wire according to claim 1 wherein core wire has a tapered segment between the medal segment and the distal segment.

6. (Original) A guide wire according to claim 1 wherein the core wire further comprises a taper which couples the medial segment and the distal segment and wherein substantially the entire core wire is covered with a polymeric material.

7. (Original) A guide wire according to claim 1 wherein the core wire comprises a polymeric material.

8. (Original) A guide wire according to claim 1 wherein the core wire comprises a polymeric material and the core wire is substantially completely covered with a second polymeric material.

9. (Original) A guide wire according to claim 1 wherein the distal segment of the core wire has a diameter which is less than that of the medial segment.

10. (Original) A guide wire comprising a core wire, the core wire having coupled proximal, medial, and distal segments, the core wire substantially completely comprising a polymeric material.

11. (Original) A guide wire according to claim 10 wherein the core wire is coated with a second polymerical material.

12. (Original) A guide wire according to claim 10 wherein the core wire comprises carbon fiber.

13. (Original) A guide wire according to claim 10 wherein the core wire comprises polyetheretherketone.

14. (Original) A guide wire according to claim 10 wherein the core wire is coated with PEBAX polyetherimide.

15. (Original) A guide wire according to claim 10 wherein the core wire comprises polyetheretherketone, and the core wire is coated with polyetherimide.

16. (Original) A guide wire according to claim 15 wherein the core wire distal segment is more flexible than either of the medial segment or the proximal segment.

17. (Original) A guide wire according to claim 15 wherein the core wire distal segment is coupled to the core wire medial segment through a tapered segment and the distal segment has a diameter which is less than that of the medial segment.

18. (Original) A guide wire according to claim 10 wherein the polyetherimide coating has a hydrophilic coating thereover.

19. (Original) A guide wire comprising a core wire having coupled distal, medial, and proximal segments, the core wire comprising multiple, helically-wound, non-metallic fibers and a binder resin, the binder resin being uniformly dispersed between the fibers so as to fill any void space therebetween.

20. (Original) A guide wire according to claim 19 which further comprises a coil wire disposed about the distal segment.

21. (Original) A guide wire according to claim 19 where the non-metallic fibers comprise carbon and the binder resin comprises a vinyl ester.

22. Canceled.

23. Canceled.

24. Canceled.